

**108P The effect of the seleno-L-methionin, sodium selenite and cadmium chloride on telomerase activity of chick embryo neural tube cells**

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**Background:** Telomerase is a ribonucleoprotein enzyme with reverse transcriptase activity, that more important in developmental processes including cell proliferation, differentiation, senescence and tumorigenesis. Selenium as a trace element for animals and human has been detected which can have anticancer properties, while cadmium (Cd) is a heavy metal in the natural environment and is very toxic. Purpose of this study was investigating the effects of Seleno-L-methionine, Sodium selenite and Cadmium chloride on the expression of telomerase activity in Chick embryo neural tube.

**Methods:** Using quantitative and qualitative methods RTQ- TRAP and TRAP assay, the effect of the noted elements on the telomerase activity of Chick embryo neural tube was studied.

**Results:** Unlike expected, seleno-L-methionine increased telomerase activity. Cadmium chloride had the greatest effect on telomerase activity, while the effect of Sodium selenite was lower than two others. However, the increasing effect has been determined.

**Conclusions:** All three compounds at concentration of 5  $\mu$ M and effect time of 6 hours had most impact on Chick embryo neural tube telomerase activity compared to the control groups. Cadmium chloride had greatest effect and sodium selenite were less effective.

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